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09/302,825	04/30/1999	RICHARD J. PEARSON	101069-0170	7476

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CESARI AND MCKENNA, LLP
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EXAMINER

DAVIS, TEMICA M

ART UNIT	PAPER NUMBER
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2681

12

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.
09/302,825

Applicant(s)
Pearson

Examiner
Temica M. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 12, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 6-20, 22, 24-29, 31, and 33 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-20, 22, 24-29, 31, and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 1, 3, 4, 6-15, 20, 22, 29, 31 and 33 is withdrawn in view of the newly discovered reference(s) to Hansson, U.S. Patent NO. 6,023,620 and Halonen, U.S. Patent No. 5,887,254. Rejections based on the newly cited reference(s) follow.

Claim Objections

2. Claim 1 is objected to because of the following informalities: In claim 1, step E occurs twice. The second occurrence should be step G. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed August 5, 2003 have been fully considered but they are not persuasive.

Applicant previously argued that Yamada does not read on the claimed limitations because the reference discloses parity checking performed by a modem attached to a fixedly wired telephone line.

Although this may be true, Yamada also teaches another embodiment wherein the mending of errors can be done wirelessly (col. 5, lines 43-48). Therefore, Yamada, in combination with other references as described below, reads on the claimed limitations.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3, 6, 8-10, 12, 20, 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, U.S. Patent No. 6,023,620 in view of Yamada, U.S. Patent No. 5,414,751.

Regarding claims 1, 20 and 29, Hansson discloses a method for programming wireless subscriber terminals in a wireless system, the wireless system having a base station in wireless communication with the wireless subscriber terminals using one or more control channels and multiple traffic channels, and each wireless subscriber terminal having a memory, a non-volatile memory, a processor, and a pre-existing control program running on the processor to control operation of the wireless subscriber terminal, the method comprising the steps of:

A. transmitting from the base station over a control channel to wireless subscriber terminals information about a new control program (col. 2, lines 10-15, 41-45 and col. 3, lines 29-32);

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- B. transmitting a response from individual wireless subscriber terminal over a control channel to the base station indicating whether that terminal will be a recipient of the new control program (col. 2, lines 45-64);
- C. broadcasting the new control program in blocks of data from the base station to the recipient terminals over a control channel (col. 2, line 64-col. 3, line 4);
- D. determining the transfer status of the new control program at each recipient terminal (col. 3, lines 5-24);
- E. transmitting a status message from each recipient terminal to the base station over a point-to-point control channel indicating the status of the reception of the new control program (col. 3, lines 5-24);
- F. re-transmitting the program to each recipient terminal in response to the individual status messages sent from each recipient terminal that indicate an incomplete transmission occurred (col. 3, lines 5-24);
- G. transferring control of each recipient terminal to said new control program (col. 3, lines 18-20).

Hansson, however fails to disclose re-transmitting select missing data blocks to each recipient terminal in response to the individual status messages sent from each recipient terminal that indicate an incomplete transmission and the specific data blocks needed.

In a similar field of endeavor, Yamada discloses a wireless apparatus responsive to control signals for mending or updating operational programming.

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Yamada further discloses re-transmitting select missing blocks of data to mobile terminals as evidenced by the fact previously transmitted programming data in which errors have been detected (via parity check) can be retransmitted (col. 4, lines 33-46).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Hansson with the teachings of Yamada for the purpose of only retransmitting program portions which have been received in error. Such a feature would decrease the unnecessary use of system resources by eliminating the need to retransmit the entire programming information.

Hansson also fails to specifically disclose wherein each terminal transmits a response message to the base station indicating whether the terminal will be a recipient of the new control program. Hansson does teach that if a terminal does not want to participate, it simply ignores the message and if it does want to participate, it will send a positive response (col. 2, lines 45-55).

The examiner contends, however, that at the time of invention, it would have been obvious to a person of ordinary skill in the art to implement the feature of transmitting a negative response to the base station from the terminals not wanting to participate in receiving the new program, as such would remove the inherent delay caused in the system because of the base station waiting on a response from the terminals in which the program messages were sent.

With regard to the polling all of the terminals of the status of the new program, Hansson already makes provisions for determining the status of the program by the base station sending header information in the download message which contains the length of the file to be

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downloaded (col. 4, lines 11-15). Therefore, the examiner contends that polling for the status of the program would have been a design choice.

Regarding claim 3, the combination of Hansson and Yamada discloses the method of claim 1, wherein the step of re-transmitting occurs over one or more point-to-point control channels (col. 4, lines 34-43).

Regarding claim 6, the combination of Hansson and Yamada discloses the method of claim 1 as described above. The combination, however, fails to disclose wherein the step of transferring control involves performing a series of diagnostic tests at each recipient wireless subscriber terminal to determine the validity of the new control program received at that wireless subscriber terminal.

The examiner contends that at the time of invention, such a feature would have been obvious to a person of ordinary skill in the art as such feature would ensure that the program is acceptable for the terminal to use.

Regarding claim 8, the combination of Hansson and Yamada discloses the method of claim 1 further comprising the step of storing the original control program in a non-volatile memory after transferring control of the processor to the new control program as evidenced by the fact the mobile can toggle between memories (col. 3, lines 13-21).

Regarding claim 9, the combination of Hansson and Yamada discloses the method of claim 1 wherein the pre-existing control program and the new control program each comprise a

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software patch for controlling less than all of the operations of the wireless subscriber terminal (col. 3, lines 13-21).

Regarding claim 10, the combination of Hansson and Yamada discloses the method of claim 1 wherein the wireless subscriber terminal is a cellular phone (Hansson, figure 1).

Regarding claim 12, the combination of Hansson and Yamada discloses the method of claim 1 as described above. The combination, however, fails to disclose wherein the step of transferring control to the new control program is forced by the base station during the step of initializing each wireless subscriber terminal.

The examiner contends, that such a technique is well known in the art. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson and Yamada with the teachings of well known prior art as such forcing would ensure the mobile terminal will use the new programming information such as at a subsequent powering on of the phone. This will ensure that the mobile phone is being used at an optimum level.

Regarding claim 24, Hansson discloses a wireless subscriber terminal for use in a wireless system, the terminal comprising: a memory (130/150; figure 1); a transmitter (140; figure 1) for transmitting reverse messages from the terminal over an air interface including one or more status messages over a point-to-point control channel including transmitting a response to a base station indicating whether the terminal will be a recipient of the new control program and messages indicating the status of the reception of a new control program, or portion thereof

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including information relating to missing data blocks from a program transfer (col. 3, line 5-col. 4, line 54); a receiver (140; figure 1) for receiving forward messages from a base station over a control channel (col. 4, lines 11-15), a processor (140; figure 1) connected to the memory, the transmitter, and the receiver for controlling the terminal, and for storing the one or more program segments in the memory.

Hansson, however, fails to disclose wherein the program segments are sent without regard to sequence. Yamada discloses transmitting program segments selectively without regard to sequence as evidenced by the fact previously transmitted programming data in which errors have been detected (via parity check) can be retransmitted (col. 4, lines 33-46).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Hansson with the teachings of Yamada for the purpose of only retransmitting program portions which have been received in error. Such a feature would decrease the unnecessary use of system resources by eliminating the need to retransmit the entire programming information.

With regard to the polling the terminals of the status of the new program, Hansson already makes provisions for determining the status of the program by the base station sending header information in the download message which contains the length of the file to be downloaded (col. 4, lines 11-15). Therefore, the examiner contends that polling for the status of the program would have been a design choice.

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6. Claims 4, 7, 22, 25-28, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, Yamada and Halonen, U.S. Patent No. 5,887,254.

Regarding claims 4, 22, 25, 26, 28 and 31 the combination of Hansson and Yamada discloses the method/apparatus of claims 1, 20, 24 and 29 as described above and further discloses transmitting/retransmitting over control channels (col. 4, lines 50-54). The combination, however, fails to disclose wherein the programming information is sent over broadcast channels.

In a similar field of endeavor, Halonen discloses updating the software of a mobile terminal. Halonen further discloses updating the software using broadcast channels (col. 6, lines 27-31).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson and Yamada with the teachings of Halonen in the event that multiple mobile terminals need the information.

Regarding claim 7, the combination of Hansson and Yamada discloses the method of claim 1 as described above. The combination, however, fails to disclose wherein the step of storing each program segment received by the recipient wireless subscriber terminal in the non volatile memory of the wireless subscriber terminal, whereby the wireless subscriber terminal retains all received program segments if reception of program segments by the wireless subscriber terminal is interrupted.

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Halonen reads on this limitation (col. 6, lines 2-10). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson and Yamada with the teachings of Halonen for the purpose of saving system resources by only transmitting portions of the program not previously received before the interruption.

Regarding claim 27 and 33 the combination of Hansson and Yamada discloses the method/terminal of claims 24 and 29 as described above. The combination, however, fails to disclose forward switch-over messages.

Halonen reads on this limitation (col. 3, line 61-col. 4, line 54). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson and Yamada with the teachings of Halonen for the purpose of ensuring the mobile terminal will use the new programming information. This will ensure that the mobile phone is being used at an optimum level.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, Yamada and Lahdemaki, U.S. Patent No. 6,167,257.

Regarding claim 11, the combination of Hansson and Yamada discloses the method of claim 1 as described above. The combination, however, fails to disclose wherein the wireless subscriber terminal is a terminal of a wireless local loop.

In a similar field of endeavor, Lahdemaki discloses a method of remotely changing the communication settings of a subscriber station.

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Lahdemaki further discloses a terminal of a wireless local loop which can be programmed via a base station (col. 3, line 45-col. 4, line 42; figures 1-3).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the terminals of Hansson and Yamada with the terminals of Lahdemaki since it is well known in the art that such WLL terminals can be programmed via over the air programming.

8. Claims 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, Yamada and Zicker, U.S. Patent No. 5,794,141.

Regarding claims 13 and 16 Hansson discloses a base station (120) inherently having a processor, transmitter and receiver; a control program transmitted from the base station (col. 2, lines 41-45); one or more wireless subscriber terminals in wireless communication with the base station over an air interface (figure 1), the air interface comprising inherently a plurality of channels (col. 4, lines 50-54); means for transmitting from the base station to wireless subscriber terminals information about a new control program (col. 2, lines 41-45), means for transmitting a response from terminals over a control channel to the base station indicating whether that terminal will be a recipient of the new control program (col. 2, lines 45-64), means for broadcasting the new control program in blocks of data from the base station to the recipient terminals (col. 2, lines 56-64); means for determining the transfer status of the new control program at each recipient terminal (col. 3, lines 5-24); means for transmitting a status message

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from each recipient terminal to the base station over a control channel indicating the status of the reception of the new control program (col. 3, lines 5-24); means for re-transmitting the program to each recipient terminal in response to the individual status messages sent from each recipient terminal that indicate an incomplete transmission occurred (col. 3, lines 5-24); means transferring control of each recipient terminal to said new control program (col. 3, lines 18-20).

Hansson, however fails to disclose re-transmitting select missing data blocks to each recipient terminal in response to the individual status messages sent from each recipient terminal that indicate an incomplete transmission and the specific data blocks needed.

In a similar field of endeavor, Yamada discloses a wireless apparatus responsive to control signals for mending or updating operational programming.

Yamada further discloses re-transmitting select missing blocks of data to mobile terminals as evidenced by the fact previously transmitted programming data in which errors have been detected (via parity check) can be retransmitted (col. 4, lines 33-46).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Hansson with the teachings of Yamada for the purpose of only retransmitting program portions which have been received in error. Such a feature would decrease the unnecessary use of system resources by eliminating the need to retransmit the entire programming information.

Hansson also fails to specifically disclose wherein each terminal transmits a response message to the base station indicating whether the terminal will be a recipient of the new control

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program. Hansson does teach that if a terminal does not want to participate, it simply ignores the message and if it does want to participate, it will send a positive response (col. 2, lines 45-55).

The examiner contends, however, that at the time of invention, it would have been obvious to a person of ordinary skill in the art to implement the feature of transmitting a negative response to the base station from the terminals not wanting to participate in receiving the new program, as such would remove the inherent delay caused in the system because of the base station waiting on a response from the terminals in which the program messages were sent.

With regard to the polling all of the terminals of the status of the new program, Hansson already makes provisions for determining the status of the program by the base station sending header information in the download message which contains the length of the file to be downloaded (col. 4, lines 11-15). Therefore, the examiner contends that polling for the status of the program would have been a design choice.

Hansson also fails to specifically the base station capable of storing programming information, but rather shows the base station first receiving programming information from a server processor (100) and then transmitting that programming information to remote terminals (page 8, lines 2-6).

Zicker discloses a base station that stores programming information, and then transmits that programming information to a mobile device (col. 7, line 38-col. 8, line 43 and col. 12, lines 47-54).

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At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson and Yamada with the teachings of Zicker, since it is well known in the art that base stations are capable of storing information, specifically programming information.

Regarding claim 14, the combination of Hansson, Yamada and Zicker discloses the system of claim 13, wherein the one or more wireless subscriber terminals comprise cellular phone handsets (Hansson; figure 1).

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, Yamada, Zicker and Lahdemaki.

Regarding claim 15, the combination of Hansson, Yamada and Zicker discloses the system of claim 13 as described above. The combination, however, fails to disclose wherein the wireless subscriber terminal is a terminal of a wireless local loop.

Lahdemaki further discloses a terminal of a wireless local loop which can be programmed via a base station (col. 3, line 45-col. 4, line 42; figures 1-3).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the terminals of Hansson, Yamada and Zicker with the terminals of Lahdemaki since it is well known in the art that such WLL terminals can be programmed via over the air programming.

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10. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansson, Yamada, Zicker and Halonen.

Regarding claims 17 and 18, the combination of Hansson, Yamada and Zicker discloses the base station of claim 16 as described above and further discloses transmitting/retransmitting over control channels (Hansson, col. 4, lines 50-54). The combination, however, fails to disclose wherein the programming information is sent over broadcast channels.

Halonen discloses updating the software using broadcast channels (col. 6, lines 27-31).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson, Yamada and Zicker with the teachings of Halonen in the event that multiple mobile terminals need the information.

Regarding claim 19, the combination of Hansson, Yamada and Zicker discloses the base station of claim 16 as described above. The combination, however, fails to disclose forward switch-over messages.

Halonen reads on this limitation (col. 3, line 61-col. 4, line 54). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Hansson, Yamada and Zicker with the teachings of Halonen for the purpose of ensuring the mobile terminal will use the new programming information. This will ensure that the mobile phone is being used at an optimum level.

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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday from 6:45 am to 3:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Sinh Tran, can be reached on (703) 305-4040.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 Customer Service whose telephone number is (703)306-0377.

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for any communications intended for entry).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Temica M. Davis
December 1, 2003


TEMICA M. DAVIS
PATENT EXAMINER